

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number
WO 2005/080929 A1

(51) International Patent Classification⁷: **G01J 3/46**, 3/50, A61C 19/10

(21) International Application Number: PCT/EP2005/001208

(22) International Filing Date: 7 February 2005 (07.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 04356023.4 20 February 2004 (20.02.2004) EP

(71) Applicant (for all designated States except US): **TRO-PHY RADIOLOGIE S.A. [FR/FR]**; 4, Rue F. Pelloutier, Croissy-Beaubourg, 77437 Marne La Valle Cedex 2 (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **INGLESE, Jean-Marc [FR/FR]**; 5, Allée de chez Swan, 77437 Bussy Saint Georges (FR). **CROGUENEC, Anne, Corinne, Marie [FR/FR]**; 43, Rue du Parc, 53960 Bonchamp (FR). **BARNEOUD, Julien, Damien, Lilian [FR/FR]**; 9, Rue de la Montagne, 77600 Bussy Saint Martin (FR).

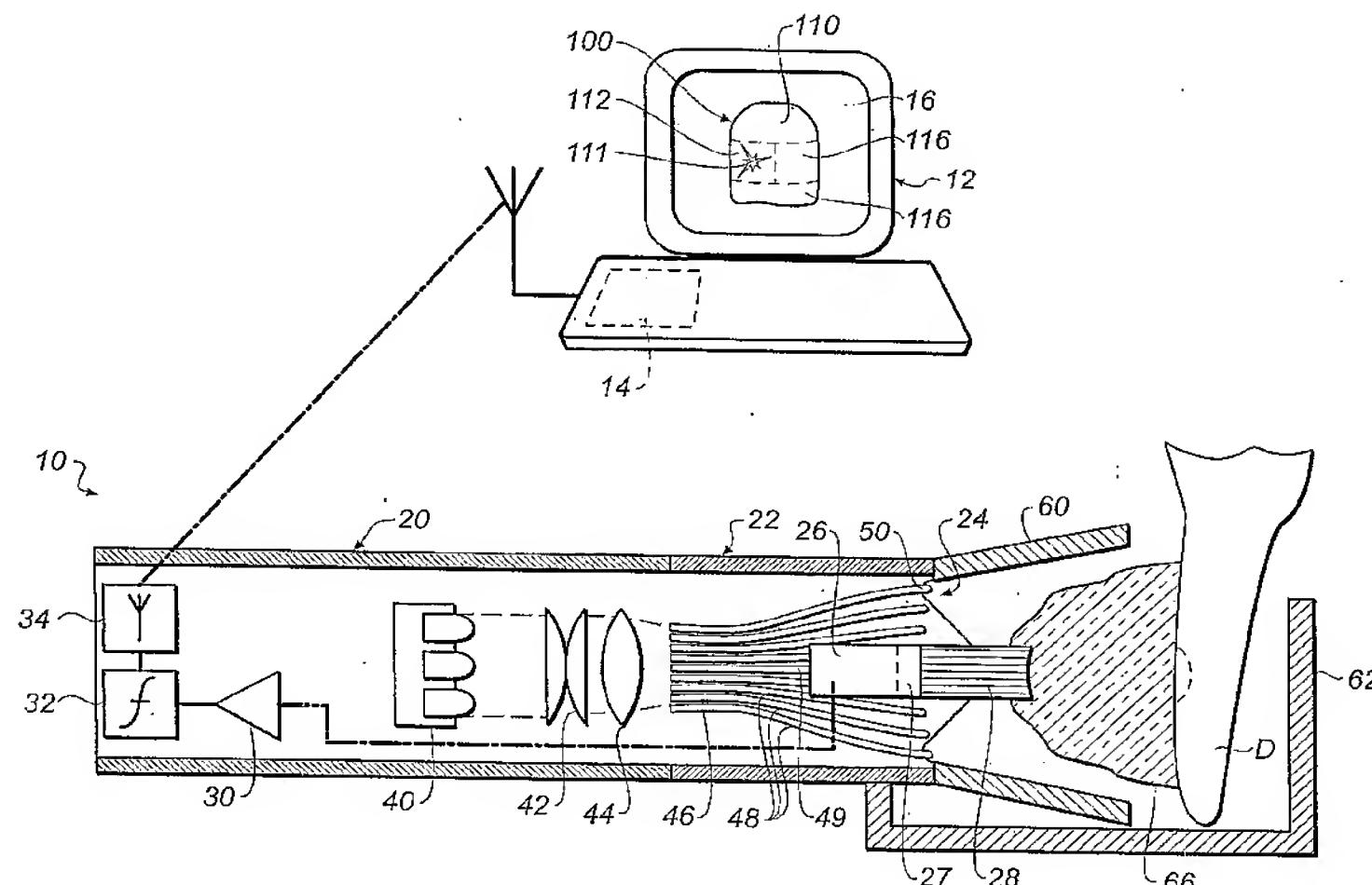
(74) Agent: **WEBER, Etienne**; Kodak Industrie, Département Brevets, CRT - Zone Industrielle, F-71102 Chalon sur Saone Cedex (FR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: EQUIPMENT AND METHOD FOR MEASURING DENTAL SHADE



WO 2005/080929 A1

(57) Abstract: The invention relates to a device for measuring dental shade comprising: - illumination means (24, 40, 42, 44, 48, 50), for successively illuminating at least one part of a tooth (D) with light of various spectral ranges, - at least one sensor (26) sensitive to light coming from said tooth part, in response to the illumination, to generate for each different color of illumination, at least one measurement signal, - means (30, 32) for converting the measurement signals corresponding to said tooth part, into the coordinates of a measurement point (202), in a shade space in which "reference" points (320, 410, 540) are also defined, corresponding to the preset shades of a dental shade guide, and - search means (114), for the tooth part, for a shade corresponding to the reference point closest to the measurement point, in the shade space.



Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.